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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,147	06/19/2003	Parvathanathan Subrahmanya	990590	6255
23696	7590	08/25/2004	EXAMINER	
Qualcomm Incorporated Patents Department 5775 Morehouse Drive San Diego, CA 92121-1714			ABRAHAM, ESAW T	
			ART UNIT	PAPER NUMBER
			2133	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

10/600,147

### Applicant(s)

SUBRAHMANYA,  
PARVATHANATHAN

### Examiner

Esaw T Abraham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2003.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/12/04</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims **1-44** are presented for examination.

#### ***Priority***

2. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 119 (e) (provisional application # 60/391,985) filed on 06/25/02.

#### ***Information Disclosure Statement***

3. The examiner has been considered the references listed in the information disclosure statement submitted on 07/15/04.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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4. Claims **1-44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nadeem et al. (U.S. PN: 5,517,507).

As per claims **1 and 23**, Needham et al. teach or disclose an apparatus and a method of informing a transmitter when data message was successfully/unsuccessfully received by a plurality of receiving communication units (see col. 2, lines 22-32). Further, Needham et al. in figure 1 element 101 teach a base station transmits two data messages (201 and 205) (see figure 2-1) to the communication units (see col. 4, lines 50-53). Furthermore, Needham et al. in figure 3 (step 305) teach that message is assumed to have been correctly or successfully received, and the process ends (see col. 5, lines 49-53). Needham et al. **do not explicitly teach** (use the same terminology as the claimed invention) that a first message having a first characteristic and the second message having a second characteristic. **However**, Needham et al. teach reference numerals (200) or (204) represent any combination of data messages (201) and (205) and reference numerals (202) and (206) represent any combination of energy burst (203) and (207) and further Needham et al. in figure (2-1) and figure (2-2) teach data messages and energy bursts are transmitted in the same frequency band (see col. 4, lines 3-8) or in the different frequency band (see col. 4, lines 22-25). **Therefore**, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to transmit messages of different characteristics as taught by Needham et al. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because it would be relatively and yet high reliable in operation.

As per claims **2 and 4-6**, Needham et al. teach all the subject matter claimed in claim 1. Needham et al. **do not explicitly teach** first characteristic is a first power level

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and second characteristic is a second power level. However, Needham et al. teach that data messages and energy bursts (power levels) are transmitted in the same frequency band or in different frequency bands (see col. 4, lines 3-8 and col. 4, lines 22-25).

**Therefore**, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made that the messages (first and second) to include energy bursts (power levels) to indicate the status of the transmitted messages (received successfully or unsuccessfully). **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because the method efficiently uses frequency resources with little waste (see col. 8, lines 25-40).

As per claim 3, Needham et al. teach all the subject matter claimed in claim 1 including Needham et al. teach that data messages and energy bursts (power levels) are transmitted in the same frequency band or in different frequency bands (see col. 4, lines 3-8 and col. 4, lines 22-25).

As per claim 7, Needham et al. teach all the subject matter claimed in claim 1 including Needham et al. in figure 3 (step 307) teach unsuccessful or NACKED frames from data message.

As per claim 8, Needham et al. teach all the subject matter claimed in claim 1 including Needham et al. in figure 3 (step 309) teach re-transmitting the unsuccessful or NACKED frames from data message.

As per claim 9, Needham et al. teach all the subject matter claimed in claim 1 including Needham et al. in figure 3 (step 305) teach that message is assumed to have been correctly or successfully received, and the process ends (see col. 5, lines 49-53).

As per claim **10**, Needham et al. teach all the subject matter claimed in claim 1 including Needham et al. in figure 3 (step 309) teach re-transmitting transmitted messages.

As per claims **11 and 33**, Needham et al. teach all the subject matter claimed in claim 1 including Needham et al. in figure 4, teach receiving first and second messages at first time and second time (see figure 2 elements 200, 202) by plurality of receivers (103, 105, 107, 109).

As per claims **12, 13, 34 and 35**, Needham et al. teach all the subject matter claimed in claim 11 including Needham et al. teach that data messages and energy bursts (power levels) are transmitted in the same frequency band or in different frequency bands (see col. 4, lines 3-8 and col. 4, lines 22-25).

As per claims **14, 15, 36 and 37**, Needham et al. teach all the subject matter claimed in claim 11 including Needham et al. in figure 4 (step 407) teach that a message is successfully reached.

As per claims **16 and 38**, Needham et al. teach all the subject matter claimed in claims 1 and 11 including Needham et al. teach the reference numerals (200) or (204) represent any combination of data messages (201) and (205) and the reference numerals (202) and (206) represent any combination of energy burst (203) and (207). Further, Needham et al. in figure 4 steps 411 and 413 teach that transmitting energy (energy per bit) to indicate unacceptable frames of data message.

As per claims **17-20 and 39-42**, Needham et al. teach all the subject matter claimed in claims 1 and 11 including Needham et al. in figure 4 (steps 411 and 413) teach that transmitting energy (energy per bit) to indicate (identify) unacceptable frames of data

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message. Further, Needham et al. in figure 4 (step 407) teach that a message is successfully reached.

As per claims **21,22, 43 and 44**, Needham et al. teach or disclose an apparatus and a method of informing a transmitter when data message was successfully / unsuccessfully received by a plurality of receiving communication units (see col. 2, lines 22-32). Further, Needham et al. in figure 1 element 101 teach a base station transmits two data messages 201 and 205 (see figure 2-1) to the communication units (see col. 4, lines 50-53). Furthermore, Needham et al. in figure 3 (step 305) teach that message is assumed to have been correctly or successfully received and the process ends (see col.5, lines 49-53). Needham et al. in figure 3 (step 309) teach retransmitting the unsuccessful or NACKED frames from data message. Needham et al. **do not explicitly** teach retransmitting a requested for retransmission of a message portion in a third energy per bit. **However**, Needham et al. in figure 3 (step 309) teach retransmitting the unsuccessful or NACKED frames from data message which is basically the same as the applicant's invention except the applicant uses different terms such as energy per bit while Needham uses energy burst. **Therefore**, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to use different terms as used by Needham. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because retransmitting messages in a different levels of energy per bit (energy burst) are well known methods of transmitting / receiving systems.

As per claims **24 and 26-28**, Needham et al. teach all the subject matter claimed in claim 23. Needham et al. **do not explicitly teach** first characteristic is a first power

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level and second characteristic is a second power level. **However**, Needham et al. teach that data messages and energy bursts (power levels) are transmitted in the same frequency band or in different frequency bands (see col. 4, lines 3-8 and col. 4, lines 22-25). **Therefore**, it would have been obvious to a person having an ordinary skill in the art at the time the invention was made that the messages (first and second) to include energy bursts (power levels) to indicate the status of the transmitted messages (received successfully or unsuccessfully). **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because the method efficiently uses frequency resources with little waste (see col. 8, lines 25-40).

As per claim **25**, Needham et al. teach all the subject matter claimed in claim 23 including Needham et al. teach that data messages and energy bursts (power levels) are transmitted in the same frequency band or in different frequency bands (see col. 4, lines 3-8 and col. 4, lines 22-25).

As per claim **29**, Needham et al. teach all the subject matter claimed in claim 23 including Needham et al. in figure 3 step 307 teach unsuccessful or NACKED frames from data message.

As per claim **30**, Needham et al. teach all the subject matter claimed in claim 23 including Needham et al. in figure 3 step 309 teach retransmitting the unsuccessful or NACKED frames from data message.

As per claim **31**, Needham et al. teach all the subject matter claimed in claim 23 including Needham et al. in figure 3 step 305 teach that message is assumed to have been correctly or successfully received, and the process ends (see col.5, lines 49-53).



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As per claim **32**, Needham et al. teach all the subject matter claimed in claim 23 including Anadem et al. in figure 3 step 309 teach retransmitting transmitted messages.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


US PN: 5,903,844 Bruckert et al.


US PN: 6,654,614 Morris et al.

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (703) 305-7743. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
Esaw Abraham

  
GUY J. LAMARRE  
PRIMARY EXAMINER

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